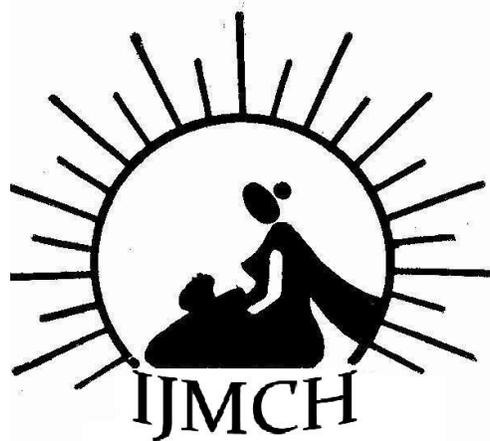


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**Situational analysis of breast feeding in India**

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Research motivation: There is a growing awareness that breast milk is the best milk for the infant.

## Situational analysis of breast feeding in India

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### Abstract

Research motivation: There is a growing awareness that breast milk is the best milk for the infant. However the rates of breastfeeding are low and the faulty practices related to breast feeding are still prevalent in the society. But with growing number of institutional deliveries it becomes the prerogative of health care givers to improve the situation.

Research design: A systemic review of the work involving studies across populations in India and other nations across the world was conducted, with the aim to arrive at highlighting the concern of breastfeeding practices in India.

Main findings and implications: The fact that the practices related to breastfeeding are differentially distributed in various parts of the country underlie the need to understand the attitude of mothers and ways to change it. The public awareness though is present but the practices still are lacking far behind. Attitude and practice needs to be built upon through targeted approach. Doctors and health care givers have a major role to play in this.

**Key words:** *Breastfeeding, exclusive breastfeeding, prelacteal feed, colostrum, practice*

### Introduction

Breastfeeding is the standard way of feeding all infants. It also enhances sensory and cognitive development and is one of the most cost effective ways to reduce infant morbidity and mortality from diarrhoeal diseases, respiratory diseases and other infections. Later in life, breastfeeding brings continuing benefits in terms of lower rates of obesity and reduced risk of chronic diseases. Breastfeeding also offers health advantages for the breastfeeding mother, including an earlier return to pre-pregnancy weight, reduced risk of breast cancer and ovarian cancer and helps to space pregnancies. There are also significant social, environmental and economic benefits. It is also an environmentally safe method of feeding. Early initiation of breastfeeding can reduce neonatal mortality by 22% and thereby decrease infant mortality rate and contribute to the attainment of Millenium Development Goals. [1]

According to National Family Health Survey -3 in India, 24.5% mothers initiate breastfeeding within 1 hour and 55.3% within 24 hours. 6-46% practice exclusive breastfeeding.[2]

Breastfeeding is a natural process that seems to have been adversely affected by the modernization of society. Though it has been widely accepted that breast milk is the best for the baby, still the rates are low. Keeping in mind the above mentioned facts this analysis was undertaken to review the situation of breastfeeding practices in India .

### Situational understanding and interpretation

A study conducted in Vadodra city in a tertiary hospital(2010) by Swetal et al indicates only 32.6% initiation of breastfeeding within one hour of delivery. The causes of delay were attributed mostly to caesarean section and fatigue. They reported association of initiation of Breast Feeding (BF) with age, literacy ,lack of adequate information and socio-economic factors. 47.4% reported initiation within 24 hours. 11.7% witnessed administration of pre-lacteal feed with sugar/glucose water/honey or some traditional mix. 9.7% reported not exclusive BF .water, top milk or tea/coffee was given to the child. [1]

NFHS-3(2005-06) done in India reports initiation within one hour as 24.5% and 55.3% within 24 hours. 0-6 months exclusive BF rates for 0-3 were 50.9% and 4-6 months were 26.4%. [2 ] NFHS-3 for Gujarat reported initiation within one hour as 27.8% and 58% within 24 hours.[2 ]

Similar study conducted in Rajkot(2009) hospital including 462 prospective lactating females reported 97% Exclusive Breast Feeding (EBF) at 3 months and 62% EBF at 6 months, while NFHS-3 reports EBF rates at 6 months as 46%. Bivariate and multivariate regression tests used showed no significant association with demography, socio-economic status,maternal education, age of mother, antenatal visits, maternal employment or time of initiation of BF.[3 ] Foo LL et al reported EBF at 21% in Singapore which is quite low. [4 ] Agampodi SB et al and Mascarenhas MLW et al reported association with parental education and women's employment from Sri Lanka and Brazil respectively.[5 ] [6 ] However Caldeira AP et al showed no association.[7 ]

Study conducted in Maharashtra covering 306 lactating mothers from villages in children 4-24 months revealed that 24.84% initiated BF within 1 hour while 85.95% within 24 hours, with the most common reason of delay as no milk secretion. 91.18 % gave colostrums and 40.2% gave pre-lacteal feed while only 28.43% were EBF.[8 ] Bhale and Shikhar Jain reported PL feed in 43.96% [9 ], S.Kishore and BS Garg reported 45% while VR Parmar et al reported it at 42%.[10 ] [11 ] S K Bandhopadhyay reported 89.4% initiated breastfeeding within 24 hours and K Madhu et al said 19% after 24 hours.[12 ] [13 ] Delay was attributed to no milk secretion most commonly.[14] EBF was 28.43% here upto 4 months while DK Taneja et al ,2003-26.4% and AA Kameshwararao ,2004 -37% respectively.[15 ] [16]

The study conducted in urban slums in Western India including 200 mothers in 6-12 months old children reported EBF at 61.5%, Pre-lacteal (PL) feed at 35%, colostrum fed in 75.5%, and initiation of BF within one hour was 47.5%.Multivariate analysis showed independent association of EBF with gender of child, maternal age, education of mother, parity, infant feeding advice, etc.[17 ] Fatoumata et al reported 15.5% prevalence of EBF in Africa and 32.8% in Klang district in Peninsular Malaysia.[18 ] [19 ] Khan et al , Swami et al and this study , all reported that one-fourth discarded colostrums.[20 ] [21 ] [17 ] Low prevalence of PL feed was reported from many studies. [20 ] [21 ] [22 ] [23] [24] Studies from India, Malaysia, Guatemala,Iran and USA also showed significant association of various factors with EBF.[19][25][26][27][28]

A study conducted in 2010-11 in metrocity Calcutta showed prevalence of immediate BF at 66.1% and pre-lacteal feed at 15%.[29] Study from Vardhan medical college, Safdarjung ,New Delhi in 2001-02 reported initiation by 15% within 2 hours.[30] Study from California ,2010

showed prevalence of early initiation as 66%, while from Nepal -41.5% within half hour and Gover et al from East Delhi within an hour at 9.1%. [31][32][33] All these studies demonstrated that time of initiation of BF was not associated with knowledge and information. Prelacteal feed administration was significantly more in good knowledge group.

The study conducted in South India in a tertiary hospital including 300 mothers reported 48% mothers initiated BF within one hour. Univariate analysis showed association with number of children, vaginal delivery, education of partner and awareness of BF while only 18% reported EBF.[34]

A study from Nepal noted higher practice of EBF when mothers lived in extended families probably due to better family support. [35]

Various Indian studies have noted higher knowledge about early initiation of BF ranging from 87-92% but initiation of BF varied from 6-36%. [36 ] [37 ] [38 ] [39 ] Mother's education, age of mother , age at marriage, religion, type of family and sex of child did not play a significant role in BF. Studies from China [40 ] and Bangladesh [41 ] showed similar correlation.

A study conducted in 2000 in Hyderabad showed encouraging trends in upper income groups through medium of books, magazines. Moreover they were well off and could stay at home without financial problem which was not possible for middle and low income mothers. Even in the low income groups it was better because they kept the baby along or wet nursing was available. It was most difficult for middle income groups to EBF.[42 ]

In 2012 in South India a study was conducted among health professionals which reported 90.1% initiation of BF within 24 hrs while 44.4% within 1 hour. Out of these 58.1% were EBF for 6 months. Gender, socio-economic factors and mother's education significantly affected BF practices. [43 ]

A study from North Pakistan hospital reported EBF till 6 months at 64.8%.[44] Afzal et al reported 16% EBF till 6 and 66% till 4 months of age.[45 ] Other study showed EBF as high as 96% [46] while some others showed it not as high [47 ][48] Parity, lack of Ante natal care (ANC), inexperience, beliefs, Socio Economic Status , gender and inadequate milk were shown to be significant factors.

A study from urban slums of Chandigarh by Kumar D et al reported 58.9% initiated BF within 6 hrs of birth, only 15.9% discarded colostrums and 40 % mothers gave PL feed. Illiterate/just literate mothers who were delivered at home were found at significantly high risk of delay in initiation of BF . [46 ]

### **Areas for action**

Lack of adequate information being given to mothers is a major factor responsible for low rates of exclusive breastfeeding and late initiation of breastfeeding. Maternal education, socio-economic factors are also known to influence breastfeeding decision. The lack of experimental research particularly in the Indian context means that it is unclear what the most effective intervention would be to improve early initiation rates as far as breastfeeding is concerned in India. [1]

In some studies factors classically considered as supportive for breastfeeding had shown no association with breastfeeding pattern. Promotion and improvement of maternal and child health services is the need of the day.[3]

Dedicated Health Care Staff and Nursing staff can play significant role in improving knowledge, attitude and practice of breastfeeding.[1]

Mothers are more receptive and emotional during antenatal period. So maximum utilization of antenatal visits should be made to provide basic information about breastfeeding. Unhygienic practices of giving prelacteal feed should be discouraged by constant health education. Magnitude of EBF was very low. Education and postnatal help to mothers is the need of the day. [8]

Counseling and demonstration of BF with the support of partners could improve the practices. Knowledge alone is not going to determine successful BF practice, but sensitization of the health care provider and the infrastructural amendments are needed for early initiation of BF in a hospital background.[34] Removal of myths and misconceptions about PL feed and colostrums feeding is the need of the hour.

The importance of breastfeeding in reducing IMR in improving the well being of infants, reducing morbidity in infants cannot be overemphasized. Promotion of good breastfeeding practices by health department and non-governmental organizations is highly recommended.[44]

Promotion of institutional deliveries and imparting health education to the mothers for protecting and promoting optimal breastfeeding practices are suggested.[46]

#### Table of analysis

Place of study	Year of study	Sample size	Initiation of BF within 1 hr (%)	Initiation of BF within 24 hrs (%)	EBF (%)	PL feed (%)	Colostrum given (%)
Vadodra	2010	175	32.6	47.4	90.3	11.7	
NFHS-3 India	2005-06		24.5	55.3	6-46		
NFHS-3 Gujarat	2005-06		27.8	58			
Rajkot	2009	462			At 3 mnths-97 At 6 mnths-62		
Singapore, India, Malay and China	2001	2098			21		

Maharashtra	2004	306	24.84	85.95	28.43	40.2	91.18
MP, India	1999	50				43.96	
Rural India	1999					45	
Chandigarh	2000					42	
West Bengal	2000			89.4			
Rural Bangalore	2009			81		19	
Rural Delhi	2003				26.4		
Maharashtra	1997	314			39.5		
Western India	2009	200	47.5		61.5	35	75.5
Africa	2009				15.5		
Klang dst., Malaysia	2009				32.8		
China	2009		35(within 30 min)				
Calcutta	2010- 11	600	66.1			15	
New Delhi	2001- 02			15			
California	2010		66				
Nepal	2011		41.5(within 30 min)				
East Delhi	1997		9.1				
South India	2013	300	48		18		
South India	2007- 09	67 health prof	44.4	90.1	58.1		
North Pakistan	2007				64.8		
Pakistan	2006				At 4 mnts-66  At 6 mnts-16		
Urban slums of Chandigarh	2006	270		58.9(within 6 hrs)	96	40	57

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